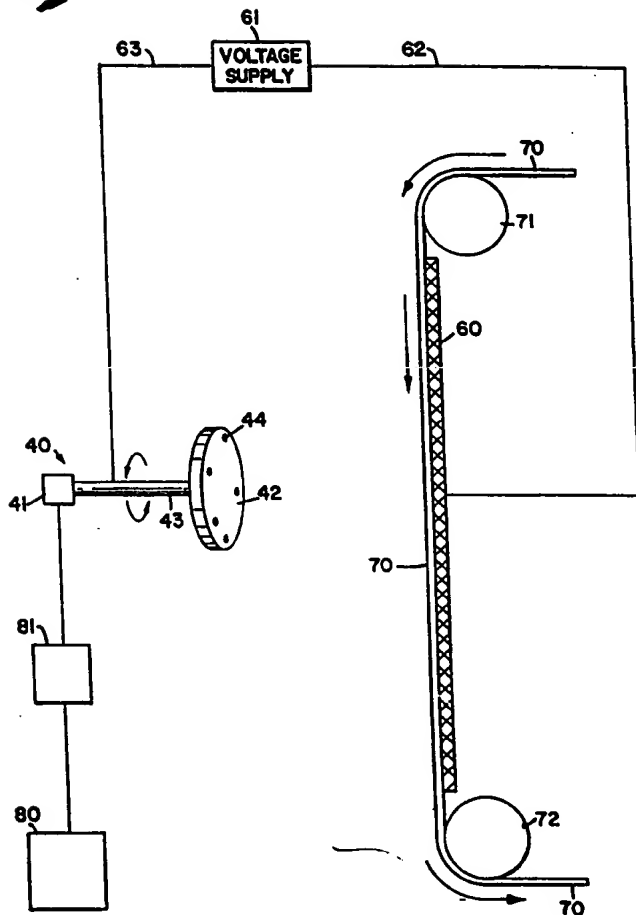


09871169-053101

FIG. 1

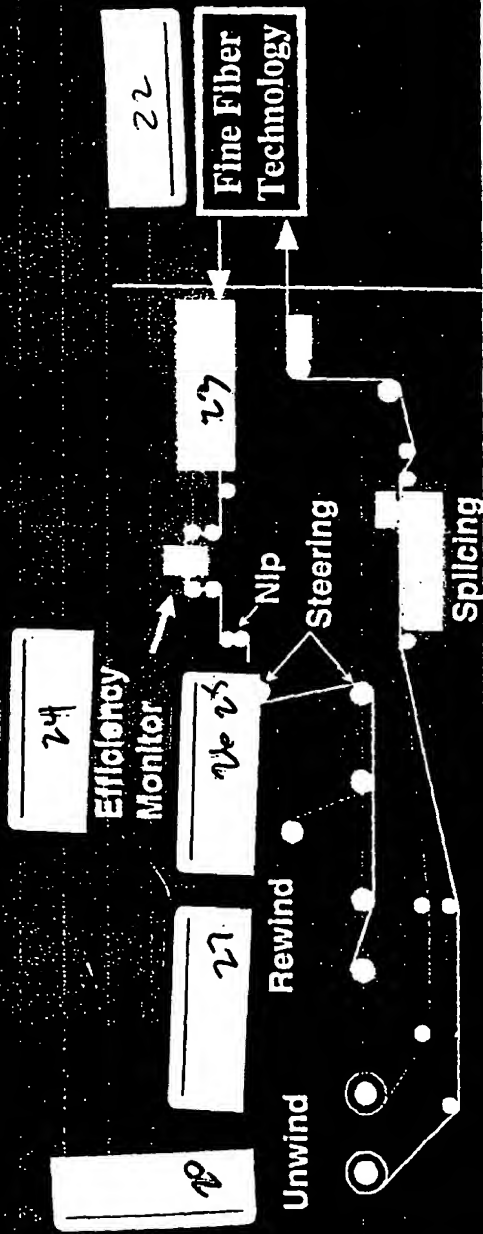
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TOP SECRET 69TT/860

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Fine Fiber Technology



Donaldson
T.M. Welk
8 Dec 95

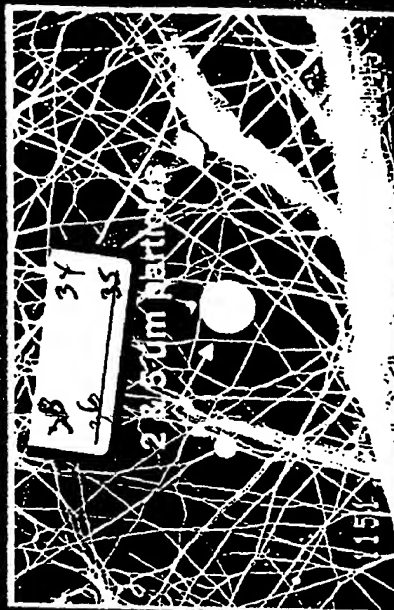
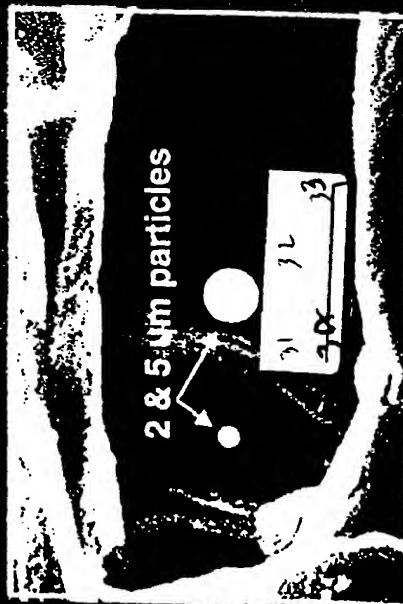
24

28

22

Cellulose Media

Ultra-Web®



2,000 X Scanning Electron Microscope Images

ACS

TOPESD" 69TF4860

Katz Analytical Services, Inc.
1191-20C-3, Sample #: 1, Angle: 65

XPS Multiplex

O 1s

EV/Step: 0.2 eV, Time/Step: 50 mSec, Sweeps: 12

Source: Al, Pass Energy: 71.55 eV, Work Function: 4.1 eV

Fig 4

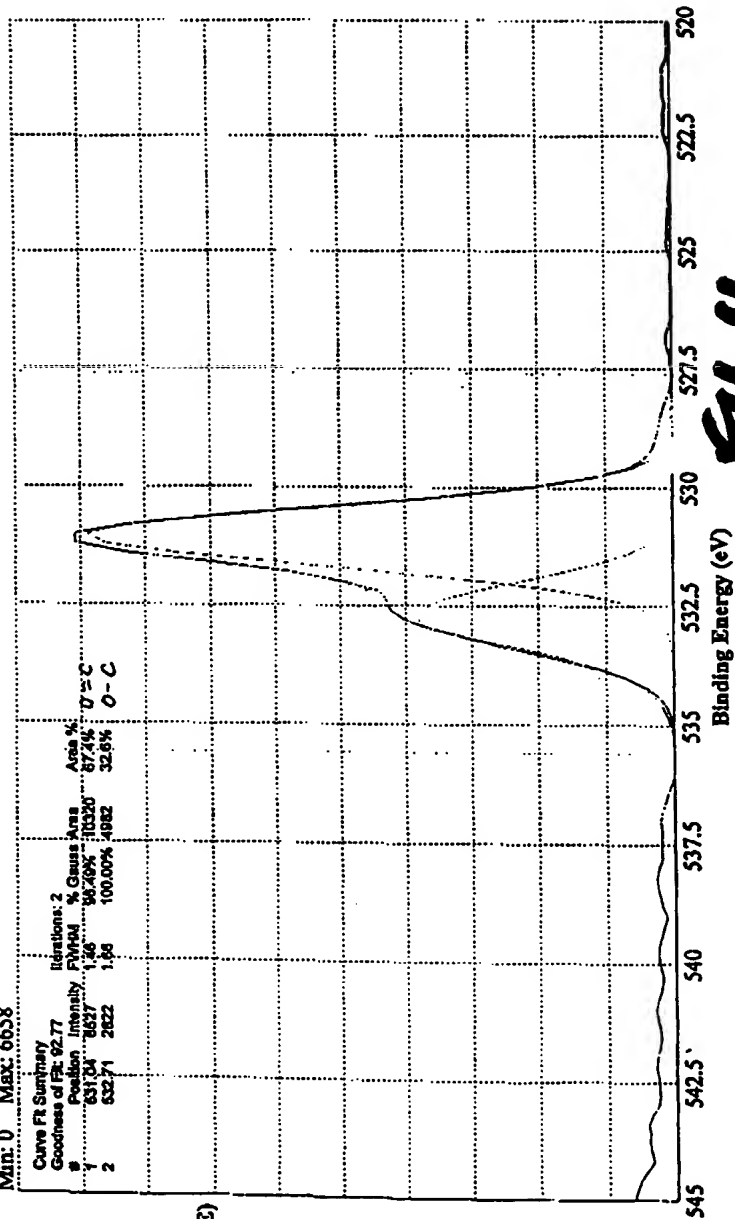
ESCA O 1s Spectra for Samp 6A As Spec

Min: 0 Max: 6658

Curve Fit Summary				
Iterations: 2				
#	Position	Intensity	% Gauss Area	Area %
1	531.34	2627	96.20%	87.4%
2	532.71	2622	100.00%	32.6%

O=C
O-C

N(E)



File 4

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DONALDSON COMPANY INC.

AUG-17-2000 08:36

P. 04

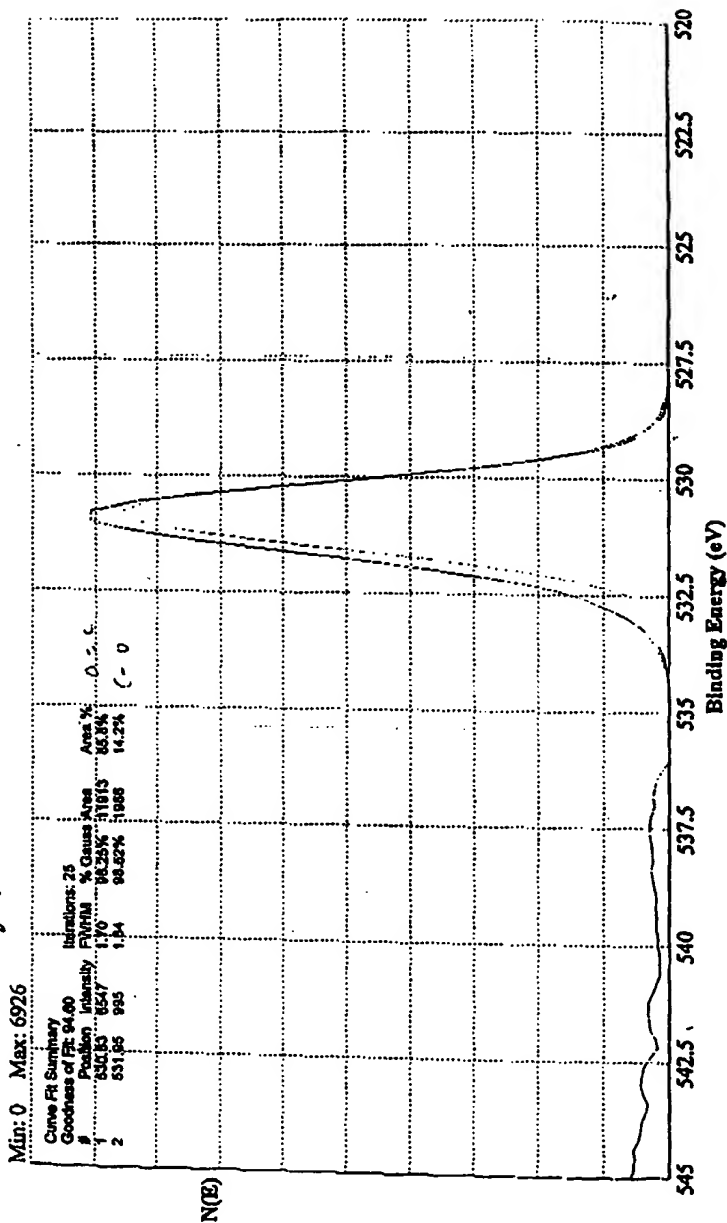
Katz Analytical Services, Inc.
1191-20C-4, Sample #: 1, Angle: 65

XPS Multiplex

013

EV/Step: 0.2 eV, Time/Step: 50 mSec, Sweeps: 12
Source: Al, Pass Energy: 71.55 eV, Work Function: 4.1 eV

Fig 3. ESCA O 1s Spectra for Heat-Treated Sample 6A



TOTESO" 69TF2860

Katz Analytical Services, Inc.

1191-20C-5, Sample #: 1, Angle: 65

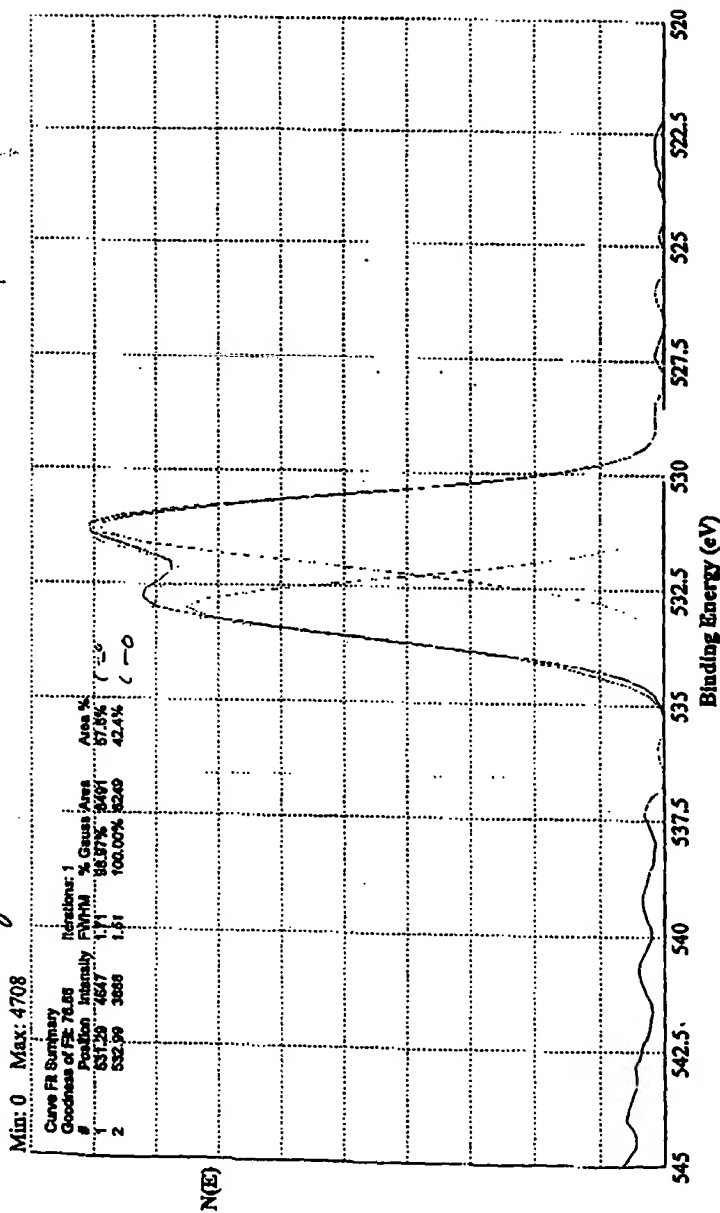
XPS Multiplex

O 1s

EV/Step: 0.2 eV, Time/Step: 50 mSec, Sweeps: 12

Source: Al, Pass Energy: 71.55 eV, Work Function: 4.1 eV

Fig. 1, ESCA O 1s spectra for As-Span Example



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Katz Analytical Services, Inc.
1191-20C-6, Sample #: 1, Angle: 65

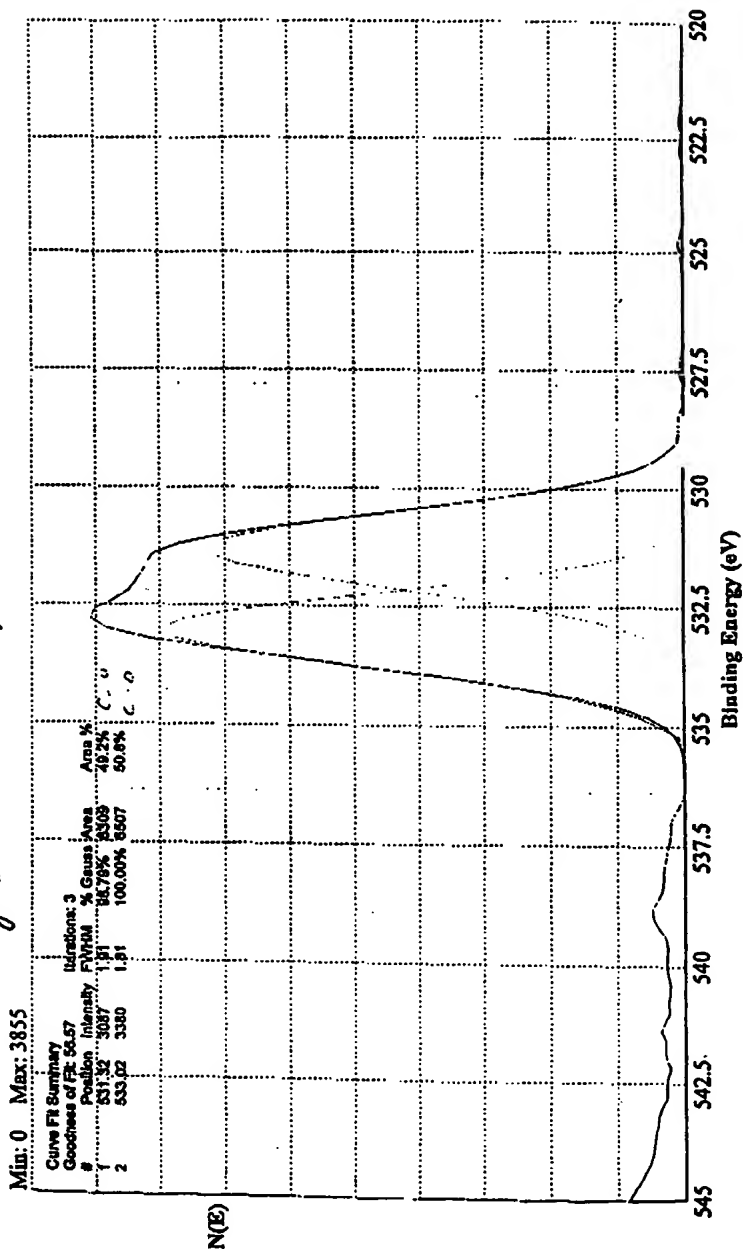
XPS Multiplex

O 1s

EV/Step: 0.2 eV, Time/Step: 50 mSec, Sweeps: 16

Source: Al, Pass Energy: 71.55 eV, Work Function: 4.1 eV

Fig 9 ESCA O1s Spectra for Heat-Treated Sample 6B



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FOFESD" 69FT/850

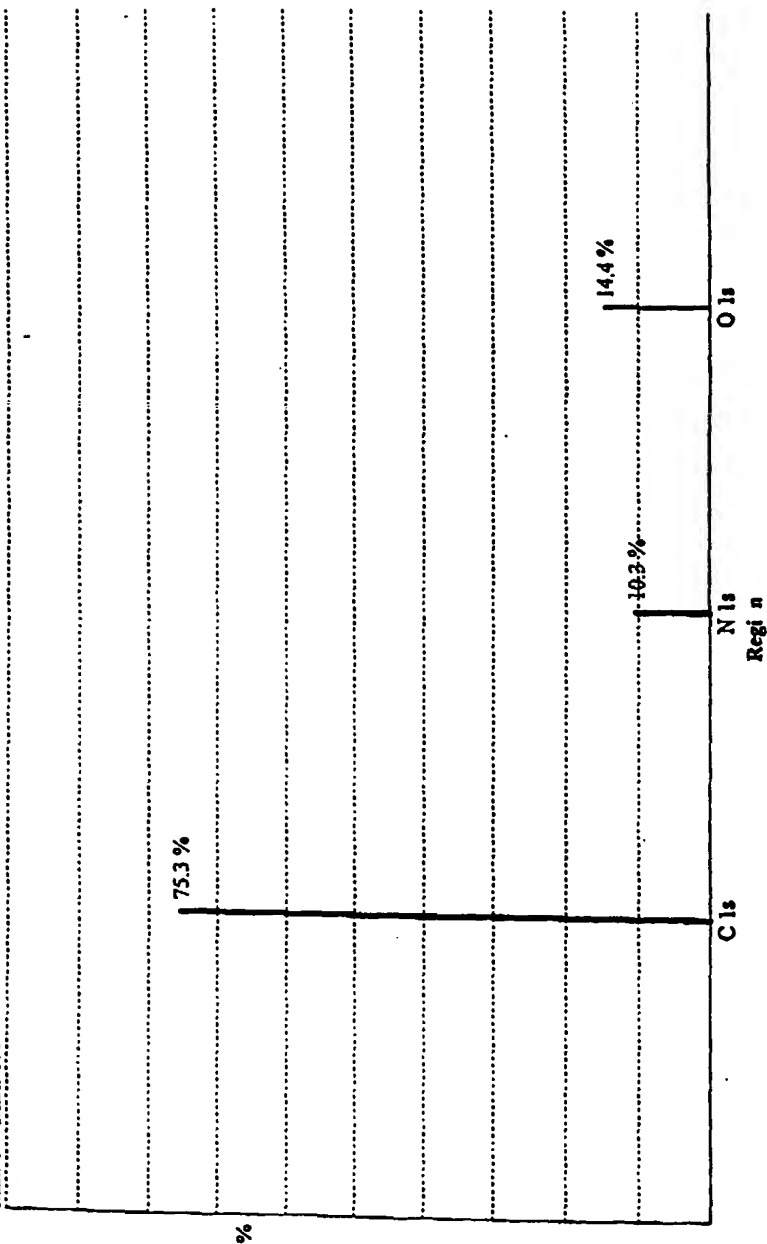
Katz Analytical Services, Inc.
1191-20C-3, Sample # 1, Angle: 65

XPS Multiplex

Source: Al, Pass Energy: 71.55 eV, Work Function: 4.1 eV

Fig 8. ESCA Multiplex for As-spun Sample 16A

Min: 0 Max: 100



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FOI 69112860

Katz Analytical Services, Inc.
1191-20C-4, Sample #: 1, Angle: 65

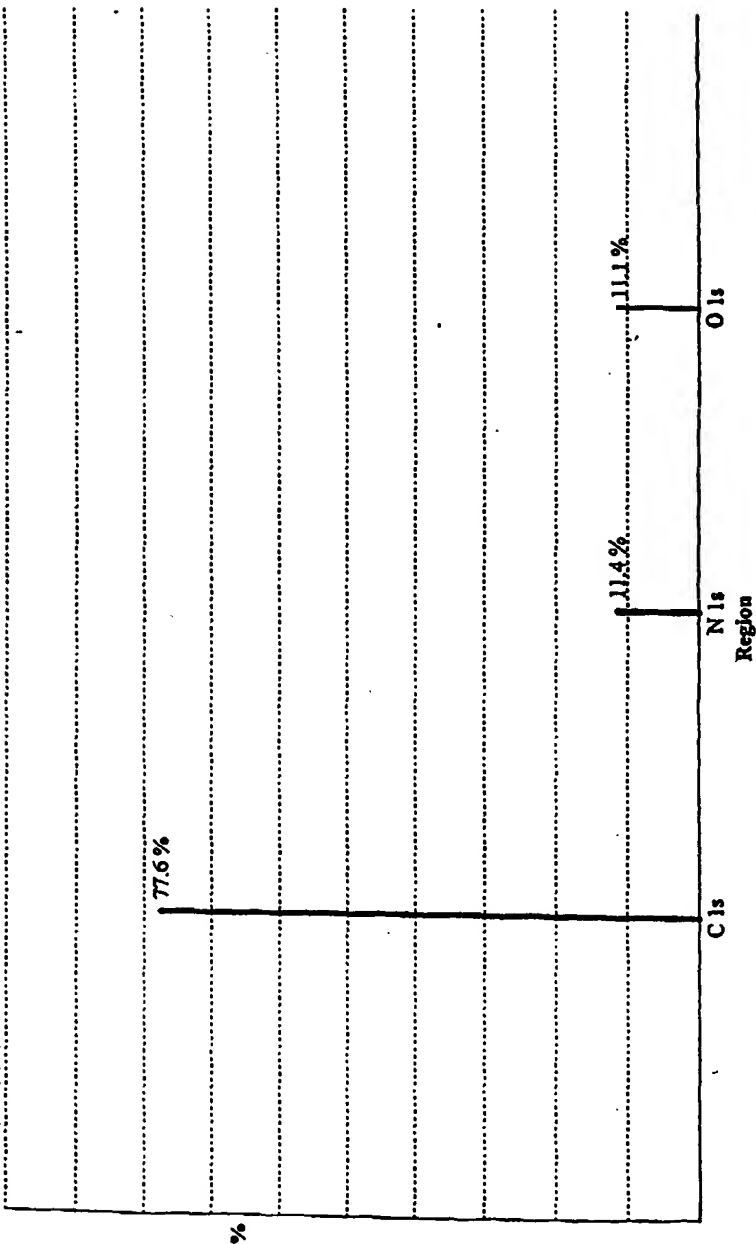
XPS Multiplex

Source: Al, Pass Energy: 71.55 eV, Work Function: 4.1 eV

Fig 9.

ESCA Multiplex for Heat Treated Sample 6A

Min: 0 Max: 100



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T0TES0" 69T1/860

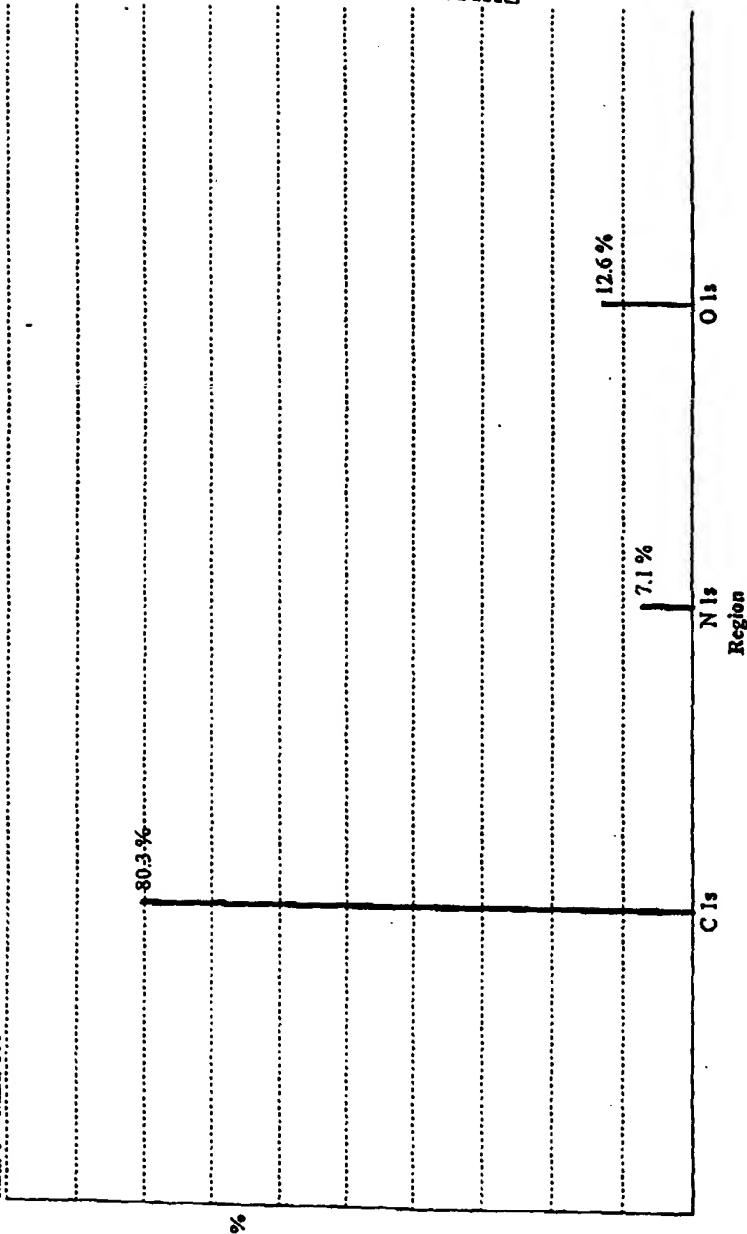
Katz Analytical Services, Inc.
1191-20C-5, Sample #: 1, Angle: 65

XPS Multiplex

Source: Al, Pass Energy: 71.55 eV, Work Function: 4.1 eV

Fig 10 ESCA Multiplex for As-Spun Sample 6B

Min: 0 Max: 100



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TOTAL P. 11

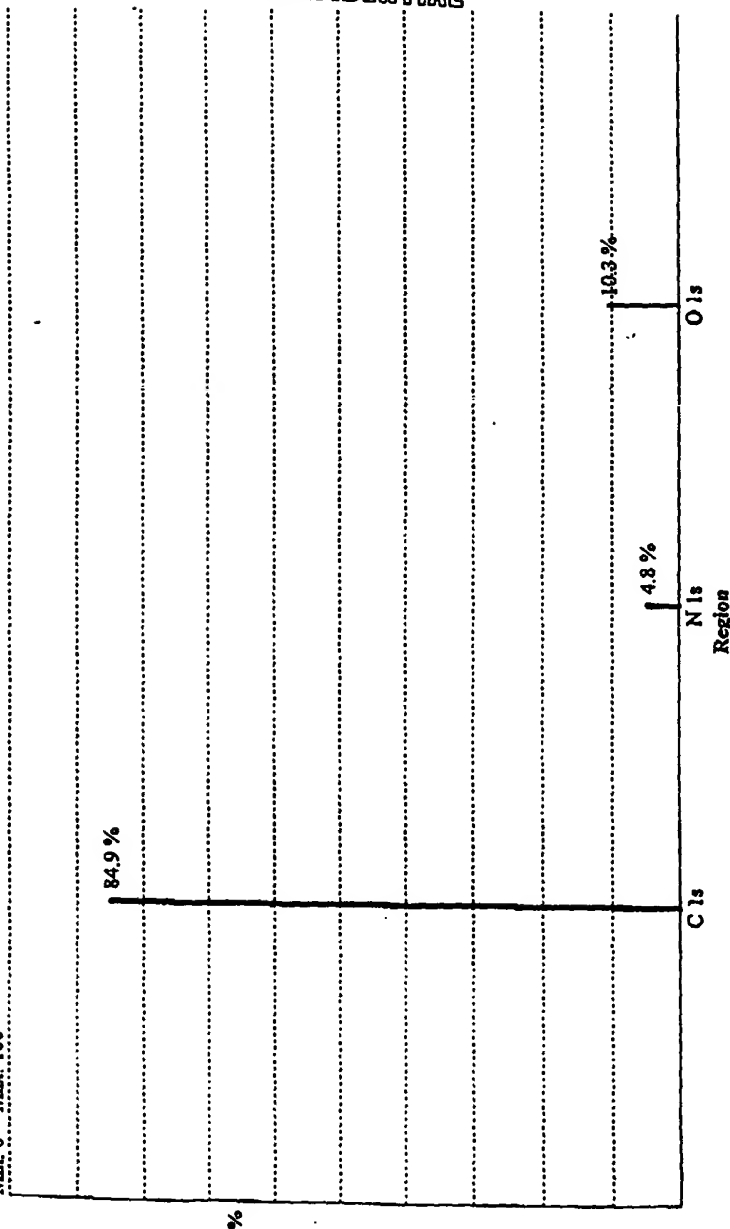
Katz Analytical Services, Inc.
1191-20C-6, Sample #: 1, Angle: 65

XPS Multiplex

Source: Al, Pass Energy: 71.55 eV, Work Function: 4.1 eV

Fig. A ESCA Multiplex for Heat-Treated Sample 6B

Min: 0 Max: 100



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Hot
water
pouch
in
hot
mediums

Ultra Web Long Sock

October 26, 1993

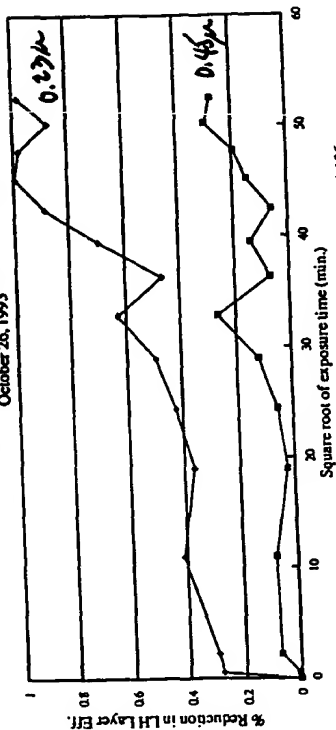


Fig 12

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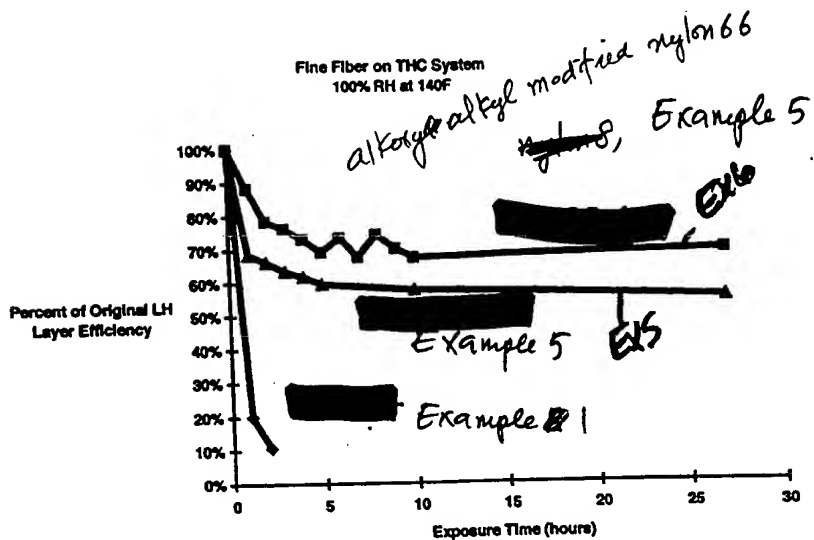


FIG. 13

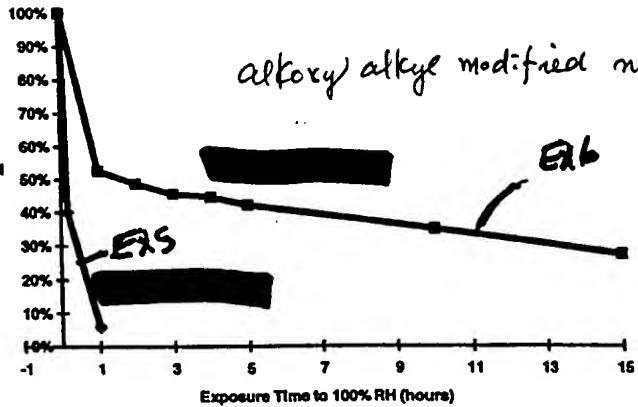
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+
FOESN-68112860

Fine Fiber on the THC System
160 F at 100% RH

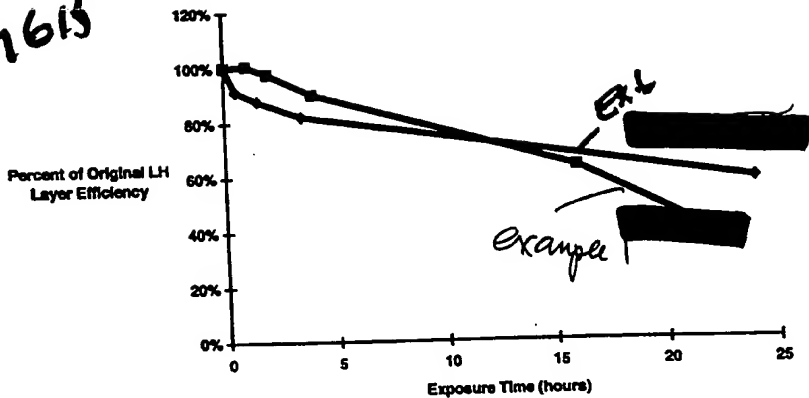
Percent of Original LH
Layer Efficiency



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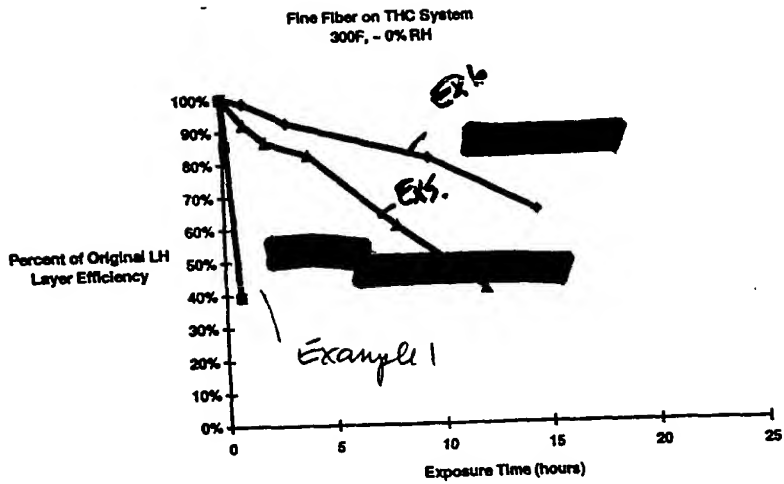
Fine Fiber on THC System
250F, - 0% RH



09071169 053101

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Fig 16



09871169-053101

TOPES01 15 1911-19C-6

Melt

Sample: 1191-19C-6

Size: 9.1500 mg

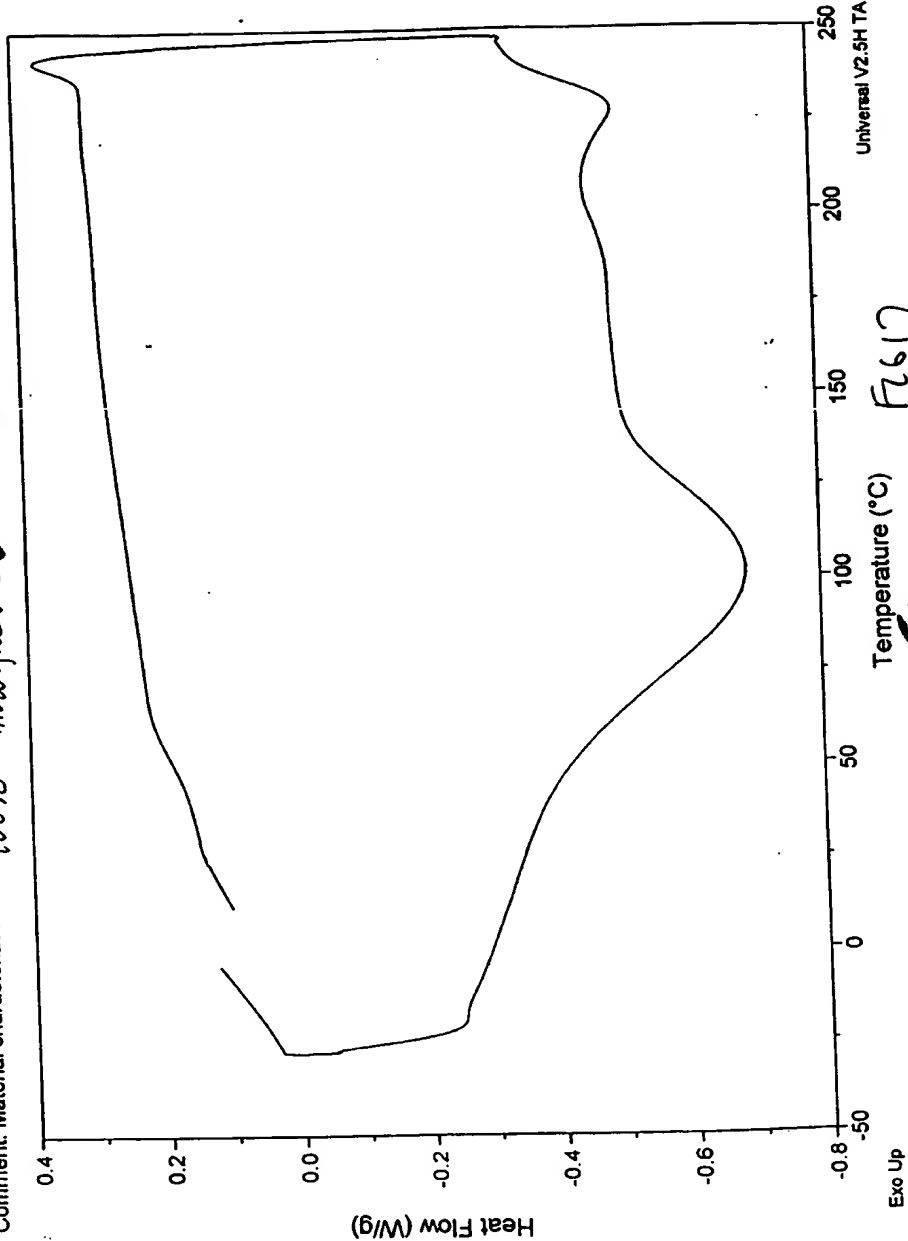
Method: Polymer Samples

Comment: Material characterization

DSC nylon

100% modified 66

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Universal V2.5H TA Instruments

Exo Up

TOTESD-69TT2860

2nd Melt

DSC

nylon

Sample: 1191-19C-6

Size: 9.1500 mg

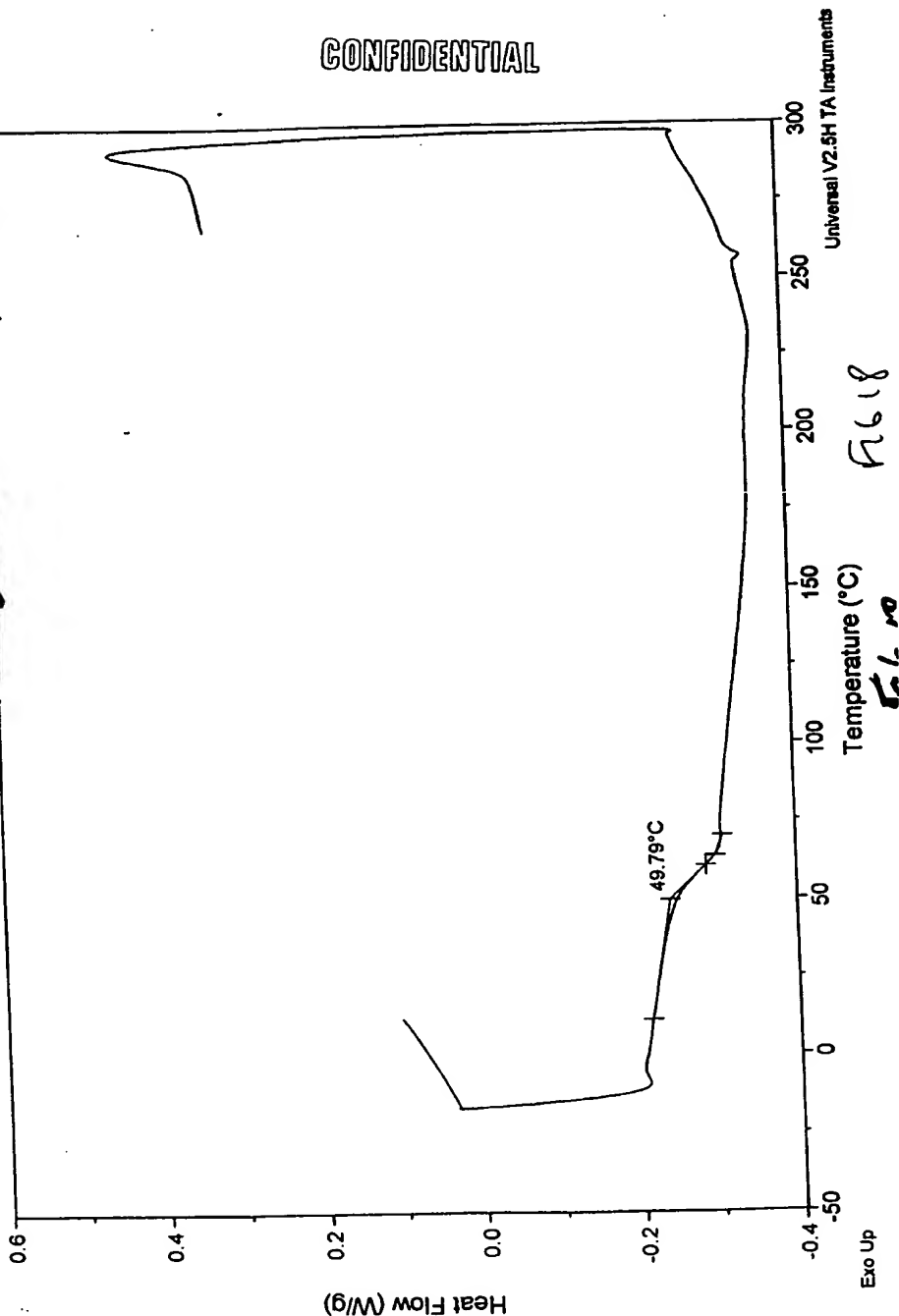
Method: Polymer Samples

Comment: Material characterization

100% modified

66 -- After Fully Cross-Linked

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T0TES0-69TF2860

1st Melt

DSC

Example 6

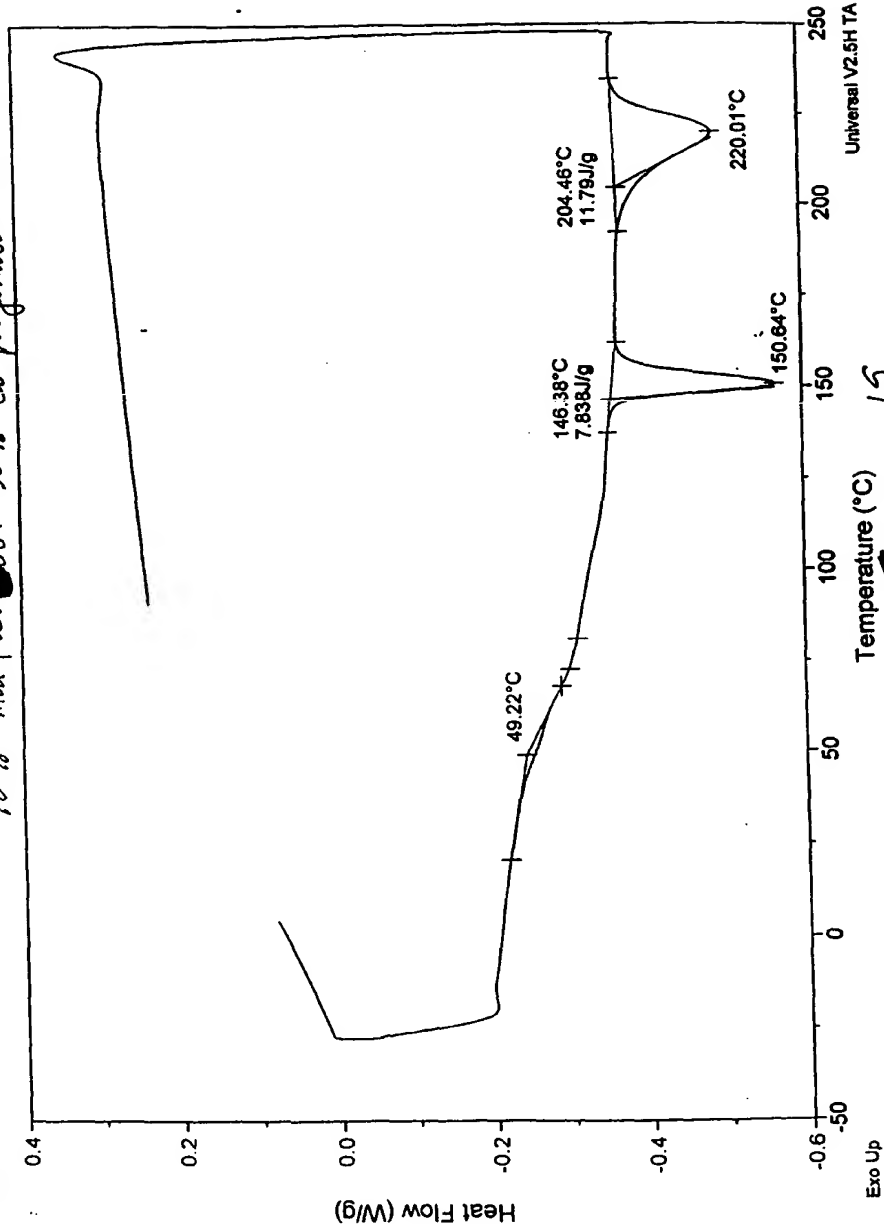
Sample: 1191-19C-7

Size: 9.8400 mg

Method: Polymer Samples

Comment: Material characterization

70% mol file 66: 30% co-polyamide



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TOPSO-69TT4860

Sample 6

2nd melt
DSC

Sample: 1191-19C-7

Size: 9.8400 mg

Method: Polymer Samples

Comment: Material characterization

70:30

after Full cross linking

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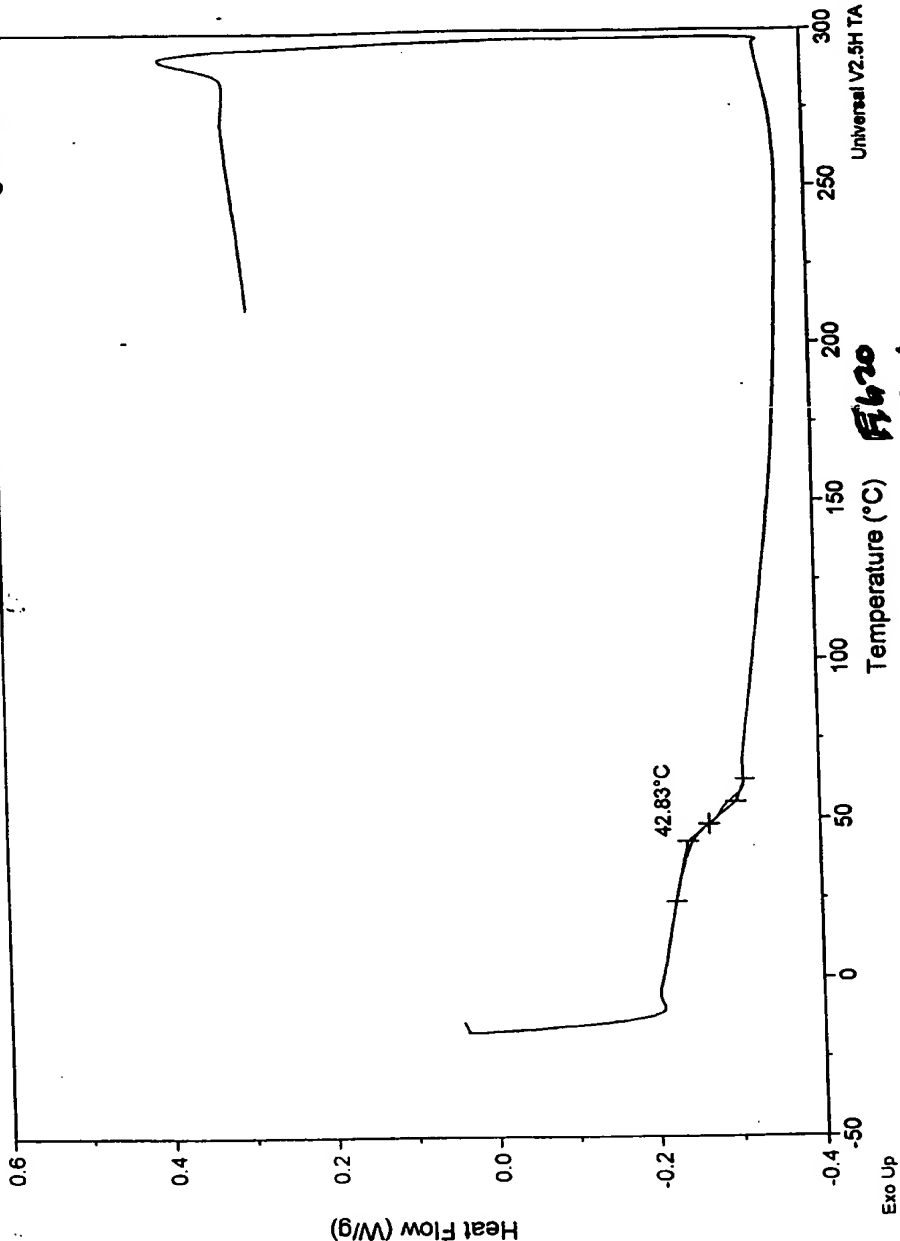


FIG. 21

